

DELAWARE MUNICIPAL ELECTRIC CORPORATION
REGULAR MEETING
DEMEC ADMINISTRATIVE BUILDING
SMYRNA, DELAWARE
December 3, 2019

A meeting of the Board of Directors of the Delaware Municipal Electric Corporation was held Tuesday, the 3rd day of December 2019 at DEMEC's Administrative Building, Smyrna, Delaware.

The meeting was called to order at 9:05 a.m. with Morris Deputy, Chair, presiding.

The following roll call was presented:

Present:

Morris Deputy, Board Chairman
Representing Middletown
Tyler Reynolds, Alternate
Representing Middletown
Mark Whitfield, Alternate
Representing Milford
Charles Anderson, Director
Representing Seaford
June Merritt, Alternate
Representing Seaford
Tom Coleman, Director
Representing Newark
David DelGrande, Alternate
Representing Newark
Mary Ellen DeBenedictis, Director
Representing Clayton
Sue Muncey, Alternate Director
Representing Clayton
Gary Stulir, Director
Representing, Smyrna
Austin Calaman, Alternate
Representing Lewes BPW
Pamela Patone, Director
Representing MSC of New Castle
Donna Mitchell, Director
Representing Dover
Patrick E. McCullar, President
Representing DEMEC

DEMEC Staff Attending: Heather Contant, Director of Media Relations & Communications;
Stephanie Dove, Manager of Accounting & Settlements; Scott Lynch, VP of Asset Development;

Kendra Friel, Administrative Assistant/Training & Events Coordinator; Jennifer Coulbourne, IT System Administrator

Guests and Attendees: Max Walton, General Counsel, Connolly Gallagher; Will Gallagher, Electric Superintendent, City of Milford; Jeremy Firestone, U of D; Donna Karas, CPower; Bill Oosterom, CPower; Aaron Russell, U of D;

MINUTES

None.

TREASURER'S REPORT

Mr. Patrick McCullar, President and CEO presented the October 2019 Financial Report and opened the floor for discussion and questions. None were posed.

Upon motion made by Clayton to accept and approve the October 2019 Financial Report, seconded by New Castle, the motion passed unanimously.

APPOINTMENTS / ELECTIONS

None.

PRESENTATIONS

University of Delaware – DEMEC Fellowship Student Research

Mr. McCullar introduced Mr. Aaron Russell, PhD Student of Water Science and Policy with the University of Delaware.

Mr. Russell reminded the board that DEMEC currently supports University of Delaware fellows from the Earth Ocean and Environment College at the university, but students from a number of disciplines within the university could be potential future fellows. He also noted that the college was previously the Center for Carbon Free Power Integration, but now focuses primarily on wind research.

Mr. Russell shared that some of his research, which he presented last year, is now under journal review as is previously reported research of Christine Hirt, another DEMEC Fellow. He elaborated on Christine's research stating that she was responsible for directly interacting with the residents of Block Island and recording the data pertaining to that study. Mr. Russell shared a few slides showcasing survey responses and public perception regarding the project and the turbines.

Mr. Russell also reported on future research for which he will be the project lead. This project will take a psychological look at the collected data diving deeper into the cognitive thoughts and emotional feelings associated with wind. The Block Island survey results will once again be used to initiate this project. Mr. Russell plans to divide the collected data into the cognitive and emotional categories for analysis. He then plans to compare his offshore wind findings to those of land based wind projects.

Per Mr. Russell, the newest DEMEC Fellow, Samantha Bingaman, was not able to attend today because of final exams. Her research will deal with the changes of attitude over time. Once again, the valuable data collected through the Block Island surveys will play a huge role in this research. Upon review of the data, support was not lost from the beginning to the end of the project and a number of those who were not supportive originally changed their minds by the project's end. It is hoped that researchers will be able to identify what changed the minds of these people.

Mr. Russell concluded and asked for questions.

Mr. McCullar asked if the survey data included questions about the economic impact of the project. Mr. McCullar noted that the project has been of great benefit to Block Island as they previously generated their own energy via the use of diesel which is costly and emits carbon pollution. The installation of wind eliminated the need for this form of generation and increased electric reliability on the island because even when the turbines are not generating the necessary quantity, the transmission cable run to the island now allows for a constant, reliable flow of electricity.

Mr. Russell stated that in Survey #1, participants were asked if they anticipated an economic impact and in Survey #3, they were asked what sort of economic impact the turbines have had. Professor Jeremy Firestone, of the University of Delaware, added that the data is mixed, and the situation is a bit complicated to assess. When the project was proposed, the market cost of generation was quite high. The thought was that the project costs would be lower than market but given that the project was a small demonstration project, the rates remained high. Reliability is definitely a great benefit of the project. The transmission cable has eliminated previous intermittent flickering.

Mr. Russell seconded Prof. Firestone's sentiment. He also shared that the residents have stated that their appliances work better and are lasting longer. This was a welcomed, although unexpected, effect of the project.

Mr. Tom Colman, Director representing Newark, asked about size and distance of the turbines.

Mr. Russell and Prof. Firestone approached the question as a team noting that there are five turbines, 6 MWs each. They stand 4 to 5 km off the coast of Block Island and 27 km from the closest point in Rhode Island. They are 574 ft tall to the tip of the blade.

Mr. Russell shared that the unusual shape of the island makes it so that the turbines cannot be seen except from the ferry or the bluffs. He noted that they can from time to time be seen from Port Judith and the Narragansett Bridge, but are still not very visible.

Prof. Firestone clarified that the article submitted by Christine Hirts has in fact been accepted for publication and is expected to be published at the end of December. He also shared that the new Fellow, Sam Bingaman, recently participated in "Pitch 90" a pitch competition organized by the Delaware Environmental Institute. Ms. Bingaman was chosen as one of the 5 best presenters in the competition which allows a 90 second pitch of the participant's research to be presented without notes and other tools.

Prof. Firestone went on to say that he doesn't have a presentation but is available to answer questions regarding the Maryland offshore wind project with proposed transmission line coming into Delaware.

Mr. McCullar shared that Prof. Firestone has been a part of the Delaware offshore wind discussion since 2007 or so. He noted that studies undertaken have shown Delaware to be an obvious landing point and he is not surprised that Fenwick Island State Park was chosen. He noted that attempts to bring offshore wind to Delaware previously have not generated much opposition and it still appears to be the case.

Prof. Firestone seconded Mr. McCullar's sentiment stating that good communication with residents is key to guaranteeing a positive outlook of any large infrastructure project. People need their voices to be heard. He shared examples of how this has not been the practice in the past. He noted that with this particular project there was some concern over the placement of the switch gear and who would reap the benefits. Mr. McCullar noted that Delaware will enjoy a relief in energy pricing and congestion issues, which represent a substantial burden to ratepayers and will be almost completely gone. Prof. Firestone noted that he felt this information should have been communicated to the public more effectively. He stated the other point of contention was tourism. Some studies have shown a negative effect, but nothing solid has been found.

Mr. Coleman asked if we could expect to see more turbines in the future. Prof. Firestone commented that given the fact that New Jersey and Maryland are hoping for significant increases in wind power and this site being a premier site to sell to both states in addition to Delaware, he feels this is very likely. Mr. McCullar stated that he expects that the initial transmission line installed will be oversized to allow for the addition of capacity. He also noted that someone has filed for the New England Express Transmission Cable, which is due to stop north of Delaware, but may be pushed further down during the scheduled 20 year build out time. It will be an open access cable and any offshore wind will be able to connect. For this and other reasons, both Mr. McCullar and Prof. Firestone expect offshore wind demand to increase exponentially.

Prof. Firestone said Ocean City, Maryland is very vocally against the project. We are not sure how deep the opposition is, but it is loud. He explained that Maryland is a very different market than Delaware. He took a moment to explain how other situations such as regionalization affect perception but stated in the long run familiarity with another project seems to shift views.

Ms. Mary Ellen DeBenedictis, Director representing Clayton, asked if it was an issue of aesthetics. Prof. Firestone noted that it appears that is at least partially the reason. Mr. McCullar stated that people are also afraid of the unknown. He shared how the same issue was experienced during the early stages of solar implementation. Mr. Austin Calaman, Alternate Director representing Lewes, shared that opposition was also seen in Lewes when their wind turbine was installed. People were afraid they would be loud or hurt the birds. Once installed and active, everyone was fine.

Mr. Coleman asked what plans were being developed for disposal of the blades when they wear out. Prof. Firestone stated there was no good answer at this time, but this issue is currently being researched. Mr. Deputy asked why this was of concern to which Mr. Coleman replied that the material of which the blades are made, fiberglass, is not reusable or recyclable. Mr. McCullar offered the idea of sinking them to create artificial reefs. He also stated that this is an issue which

will be faced as solar panels reach the end of their lives. There has been no suitable disposal or recycling method developed.

Professor Firestone concluded his presentation and offered to give tours to any members who may be interested. Mr. McCullar thanked the professor and Mr. Russell, noting that the program has been tremendously successful and that DEMEC is very happy to be sponsoring it.

Annual Demand Response Report – CPower

Mr. McCullar introduced Mr. Bill Oosterom, Account Executive for CPower. Mr. Oosterom explained how Demand Response works, noting that its major purpose is to encourage curtailment of load on the grid during identified times between June and September. Those who agree to participate in the program are compensated for this curtailment. The events can be declared 7 days a week between the hours of 10 a.m. and 10 p.m. and can last for the full 12 hours. Participants are given a 30 minutes response time unless an exemption has been granted. Should no events take place, a 1-hour test event will be held, and the participants will still be paid for the entire program.

This past summer, 12 DEMEC community entities participated in the program. There was a significant MW curtailment this year. There have now been 6 years with no events issued. If an entity has been in the program since 2011, they have only been asked to curtail 13 total hours. In total, they have received 3.3 million dollars in compensation for this light lift.

Mr. Oosterom provided a review of the DEMEC program, stating that it is designed to lower base load during PJM's 5 coincident peak (CP) hours during the summer. This program is voluntary and is dispatched to the same participants under the same parameters. A bonus is paid to these participants for capturing some or all 5 hours. In 2019, 14 events were called in an attempt to capture the 5 CPs. All 5 were caught within the 14 events called.

Mr. Oosterom reviewed some of the participants and the bonuses they've earned. Mr. McCullar explained that this additional program was put into place because DEMEC incurs substantial costs for capacity and transmission obligations. PJM will only call an event in case of a true emergency. By capturing these 5 CPs, DEMEC is seeing a significant saving on these obligations, far more so than the bonuses paid out.

Per Mr. Oosterom, there are changes coming to the PJM program. Originally, the program was from June to September, with participation in any events outside of this time frame being voluntary. During the polar vortex in 2014, the need arose to curtail beyond this time frame and the participation was not there. Therefore, effective June 1, 2020, Capacity Performance will be taking the place of the current PJM program. This program is a year-long program. The new parameters break into 2 tranches, June to October, 7 days a week from 10 a.m. to 10 p.m. will be the summer tranche and November to April, 7 days a week from 6 a.m. to 9 p.m., will be the winter. Everything else will remain the same.

Mr. Coleman inquired if there would be testing in the winter and summer in this new program. Mr. Oosterom stated that it will start with one test, but he anticipates that two tests will be needed in the future.

Per Mr. Oosterom, winter peaks will now need to be identified and participants will need to have both summer and winter commitments, in most cases this will be two different numbers. The lower number (likely the winter commitment) will be the base registration, resulting in an excess in the summer. The grid will allow CPower to find other participants, within the same zone (Delmarva Zone), who have opposite load to aggregate and total the full capacity of participants with summer peaks. The challenge will be to identify the Base Registration Amount Annual Value (AV) and get commitments from the participants. Then between today and mid-May, when registrations are due, CPower will attempt to find the Excess Seasonal Value (ESV). Mr. Oosterom reviewed a scenario to explain how the process will work.

Per Mr. Oosterom, the payout to participants will be going up. Mr. McCullar noted that while this is good news for the participants, it is not so for DEMEC since this is the capacity obligation. Therefore, DEMEC's obligation can be expected to rise substantially during the 2020/2021 period. Mr. Oosterom noted that the price does dip slightly in 2021/2022 and that 2022/2023 has not yet been projected.

Once both the summer and winter peaks have been identified, CPower will work with Mr. Scott Lynch, VP of Asset Development and Ms. Emily Greene, Energy Services Manager to reach out to all program participants to educate them on the changes and identify their commitments.

Ms. Heather Contant, Director of Media Relations and Communications, asked when CPower is trying to find excess winter load to compliment someone's total capacity, how will it be determined who gets what. Per Mr. Oosterom, size and relationship, yearly commitment, how much the participant delivers, and if they participate in other programs with CPower will all be determining factors.

Mr. Oosterom ended his presentation and Mr. McCullar thanked him stating that the program has been a success since the beginning. He noted that he finds it very pleasing that DEMEC is able to provide this stream of money back to retail customers at very little cost to the company.

RESOLUTIONS

None.

COMMITTEE REPORTS

Executive Committee –

Per Mr. Calaman, Mr. Darrin Gordon, Director representing Lewes, did not provide an update.

Audit Committee –

Per Ms. Patone, nothing new to report since last meeting.

PRESIDENT'S REPORTS TO BOARD

Generation Project Report:

Fremont-

Mr. McCullar noted that the scheduled outage has been extended until December 12, 2019 to take care of additional work. Fremont is expected to be back in full production by December 13, 2019.

Beasley –

None.

Construction Project Status Report:

Middletown Transmission & Substation –

None.

Economic Development Projects:

Middletown Technology Center –

None.

Newark STAR Campus –

The campus continues to grow at a brisk pace. Mr. Coleman noted that a new Financial Technologies Building has been announced. He does not know much, but he suspects it will be added to the University of Delaware ESA. For this reason, building will not be as beneficial to Newark as anticipated, but the additional load will still be welcomed.

Mr. McCullar asked if the new hospital in Milford was fully operational to which Mr. Mark Whitfield, Alternate representing Milford replied in the affirmative. Per Mr. Whitfield, the original site still needs to be developed, but work is underway.

Legislative Status Report:

Mr. McCullar noted that while talk is going on about a bill to increase the RPS, nothing concrete has been presented. A draft may have been circulated, but DEMEC has not been made aware of it. He further noted that it is not uncommon for DEMEC to be the last to know.

AMI Updates

Mr. McCullar noted that vendor changes are causing some confusion with AMI. Vendors who bought out previous contracts appear to be testing the water to see if they can push for more money. AMP is pushing back. Should any changes occur, Mr. McCullar will let the members know post haste.

New Castle –

Ms. Patone indicated that New Castle is currently evaluating participation. A meeting has taken place with Seaford and both Middletown and New Castle have plans to meet with Milford shortly.

Milford –

Mr. McCullar reported that the final water meters are to be installed and the service modules are to be put in. The finish line is in sight.

Other AMI Projects –

None.

2020 Budget:

Mr. McCullar reminded the board that the final proposed budget was sent to each director and can be found on BoardPaq as well. A minor adjustment has been made to the O&M, but the bottom line was not affected.

Upon motion made by Newark to accept and approve the 2020 Budget, seconded by Milford, the motion passed unanimously.

Mr. McCullar assured the members that if the strategic planning scheduled for the spring of 2020 has budget impact, an amendment can be drafted.

With regards to the strategic planning, the vendor has asked if the intention is to update the 2015 plan or to start from the bottom and create an entirely new plan. An update is projected to take approximately 1 ½ days and a full reworking will take approximately 2 to 2 ½ days.

Mr. Coleman asked for a copy of the 2015 strategic plan for review which Mr. McCullar promised to forward. Mr. Deputy asked when the vendor needs to know the decision. Mr. McCullar stated in the near future. He stated that he'd be happy to discuss further, but the vendor does need to have an idea of how to proceed in order to complete his proposal. It is the opinion of Mr. McCullar that a full report should be pursued. The industry has changed greatly since 2015 so the goals and objectives of DEMEC should be looked at fully to make sure they are still valid. Mr. Anderson reminded the board that only 3 of the current board members were present for the 2015 planning session, for this reason he too feels a full report should be pursued. Varying sentiments of agreement were expressed, but no motion was made.

TRAINING AND EDUCATION:

Ms. Kendra Friel, Training & Events Coordinator reported that other than the Customer Service Program, Session 2 of 4 being cancelled, she does not have much to report. This session was cancelled due to lack of interest. She reported that the first of three strategic planning webinars in the APPA series was held on Tuesday, November 19, 2019. Feedback surveys will be sent to the attendees shortly. The next will be held after the January meeting and the final after the February meeting. She reminded everyone that the Annual DEMEC Holiday Luncheon will be held immediately after this meeting and invited everyone to attend. In closing, Ms. Friel reminded the board members that the January board meeting will be held at the regular meeting time of 10:00 a.m.

Communications Update –

Ms. Heather Contant, Director of Media Relations and Communications reported the following:

After the January board meeting and before the strategic planning webinar, Ms. Contant is asking all board members in attendance to be prepared to sit for a photo to be used for the next Annual Report.

WDSB and Tom FM approached Ms. Contant with the idea of doing more video interviews on holiday lighting and energy efficiency. Instead of a 2 to 3-minute interview that takes place once on each station, these 1-minute interviews will play throughout the day over a couple of weeks.

Holiday lighting displays should be up. She encouraged the members to reach out to her for any additional items they may need. She asked them to promote the LED lighting coupon by putting it on their Facebook pages, websites, and utility pages to get out the word that they are trying to help their customers save during the holiday season. She also offered to supply them with a PDF copy of the DEMEC Holiday Energy Guide with their logo on it. The document can currently be viewed on DEMEC's website. This booklet provides holiday energy savings tips and is a good resource for your website.

She noted that Mr. Deputy was currently signing letters to be given to the legislators, along with a DEMEC booklet on the first day of session, January 14, 2020.

DEMEC Day will be held in April and the DEMEC Legislative Luncheon is being planned for June. Ms. Contant's goal is to connect with our legislators every other month.

Ms. Contant also asked that members share any pictures they may have or plan to take of their line workers or public works putting up holiday decorations. APPA and AMP like to share these photos, as does DEMEC. This helps DEMEC promote our members and highlight the little extra special perks of living in a Public Power Community. Ms. Contant recommended that the members share these pictures on their websites as well.

GREEN ENERGY PROGRAM STATUS REPORT:

Demand Response Update –

None.

ENERGY EFFICIENCY PROGRAM STATUS REPORT

Energy Efficiency Advisory Council (EEAC) –

None.

Energy Efficiency Program Update –

Ms. Contant reported that the dashboard for November is not yet available. The provided, which is for October, does not yet included Smyrna or Lewes, both of which have scheduled launch

meetings next week. A refresher/follow up meeting has taken place in Milford. Other such meetings are anticipated to begin in February or March 2020 for other members. In these meetings Ms. Contant hopes to reach out to key staff who are using the program directly. She intends to offer a refresher of all aspects and perks of the program. At this time, she will also review the names of certain programs which are changing to remedy previous confusion and provide new literature. She noted that a few other minor changes will take place, making the program easier to understand and use.

Ms. Contant then reviewed the dashboard with the members focusing on current savings and the continued success of the LED program. Customer visits will be reviewed at the January board meeting. She noted that the Electric Bill Advice service has been working well. Newark is using this tool and requiring all who make energy assistance requests make use of this efficiency education tool. In the spring of 2020, a new home energy assessment online tool will also be rolled out to help people make their homes more efficient. The tool is customizable so even if the resident knows very little about the property itself, what they do know can still be used to increase efficiency.

Ms. Patone inquired about the proposed appliance recycling. Ms. Contant noted that this will probably also roll out in the spring of 2020 and that an incentive will be given to those who take part.

Mr. McCullar instructed Ms. Contant to make sure that as the understanding your utility bill program continues to be deployed, ask the members how they are currently using the program and how they would like to do so in the future. This way modifications can be made to make the tool more effective. Ms. Contant made note. She shared that Efficiency Smart is also working on a comprehensive report which will give the members a deeper look into how customers are using the program. This data can be used to determine if more advertising is desirable or a possible shift in focus should be undertaken. New and different programs are always being added. If there is something you would like to see, please ask.

INFORMATION TECHNOLOGY

GridEx Exercise –

Mr. McCullar noted that with all that is happening in IT, this new section has been added to provide monthly updates to the board. He introduced Ms. Jennifer Coulbourne, IT System Administrator for DEMEC, to present her report.

Ms. Coulbourne stated that on November 13 and 14, DEMEC, along with staff from Newark, Middletown and Seaford, participated in NERC's GridEx Exercise as observers. This exercise is designed to allow utilities to demonstrate how they respond to cyber or physical attacks on electric infrastructure. The exercise was hosted by E-ISAC, which is a division of NERC charged with the provision of timely, actionable, industry specific information to its members with regards to security or cyber events.

The exercise took place on a simulation deck, which was much like a mock internet with blogs, social media, etc. All participants were able to log in to post their live events as they carried out the exercise. Ms. Coulbourne saw great value in the demonstrations offered by cities who have

participated in the past. The necessity and methods of communicating to their customers was of particular interest, as well as communication with local emergency services.

Per Ms. Coulbourne, the advantage to exercises such as this is the ability to tailor the scenarios to your infrastructure and network. She also noted that the exercise is very beneficial when it comes to the testing of a utility's disaster recovery and business continuity plans, which some members have in place and others are in the process of fine tuning.

Ms. Coulbourne concluded her report here and asked for questions, none of which were posed.

Mr. McCullar stated that Ms. Coulbourne will continue to report on significant happenings in this space as we move forward. He also told the members that Ms. Coulbourne has been holding meetings with their IT staff where they share ideas, problems, solutions, and work to enhance communication between their departments.

Mr. McCullar also shared that he expects the Federal Government to at some point impose standard practices for cyber and physical security. For the time being, DEMEC is following the lead of NERC who has been able to offer a lot of guidance. He noted that Ms. Coulbourne has been working closely with Mr. Steve Siok, Director of Operations and Compliance at the Beasley Power Plant to ensure these critical infrastructure components are in place. Mr. McCullar is very confident in the level of security at the plant but did note that with this being an ever changing space, vigilance is key. He shared further benefits of the E-ISAC website which requires clearance to be issued a login. He stated that the site reports every type of incident across the country, allowing for each utility to draw comparisons to the affected utilities and formulate a plan should a similar event be visited on their infrastructure or identify a way stop it from happening at all.

BUSINESS FROM THE FLOOR

Mr. McCullar shared that potential dates for strategic planning have been identified in April and May 2020. DEMEC will contact the vendor to see if they are available on any of the provided dates. Mr. McCullar is trying to relegate the planning to board meeting days but may not be able to do so. He will reach out to the membership as soon as he has more information.

A long-standing transmission complaint against Delmarva pertaining to transmission rates will be discussed at a large settlement conference at FERC in Washington, D.C. tomorrow. All parties involved will sit down and attempt to reach a settlement. A very large savings is possible for DEMEC. It is the opinion of Mr. McCullar that a contingent settlement may be reached. This will then go to the FERC Administrative Hearing Judge for blessing. Mr. McCullar is confident that the end is in sight for this issue.

EXECUTIVE SESSION

The Board went into executive session at 10:35 A.M. upon motion by Newark, seconded by New Castle to discuss the following:

- a. To discuss personnel actions, strategic business and commercial generation operations, dispatch, negotiations and planning.

The Board ended the executive session and returned to regular session at 10:52 A.M.

RETURN TO REGULAR SESSION

Upon motion made by Newark to accept and approve the DEMEC 2020 Budget, seconded by Clayton, the motion passed unanimously.

NEXT MEETING DATES

The following meeting dates were set:

- Tuesday, January 21, 2020 – 10:00 a.m.
- Tuesday, February 18, 2020 – 10:00 a.m.
- Tuesday, March 17, 2020 – 10:00 a.m.

ADJOURNMENT

Upon motion by New Castle, seconded by Seaford, the Board Meeting adjourned at 10:55 A.M.